

Lecture 22

Pesticides, Herbicides, PCBs, PAHs and By-Products of Manufacturing Processes

Reading Assignment: Manahan Chapter 7

Homework Assignment: Chapter 7, Problems 5, 6, 8, 10, 13, 16 & 17

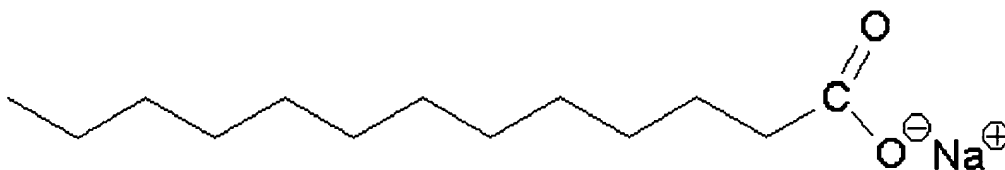
- Summary and Important Terms for Chapter 7

Links and Additional Resources:

Molecular Models as the Okangan University College Web Site

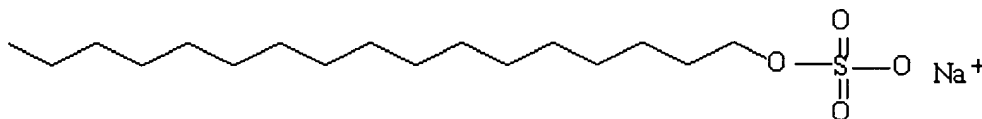
NOTE: The 3-D structures included in this lecture require a plug-in for your browser called Chime. It is available free from the MDL Web site MDLChime Plug-in. Although Chime is configured to work with IE and Netscape, we recommend using Netscape 4.80 with Chime 2.60 for optimum results.

Soap

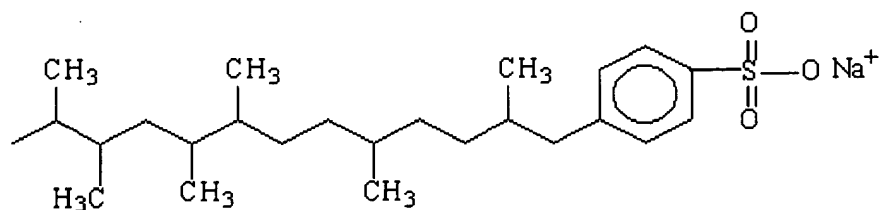


3-D structure of decanoic acid

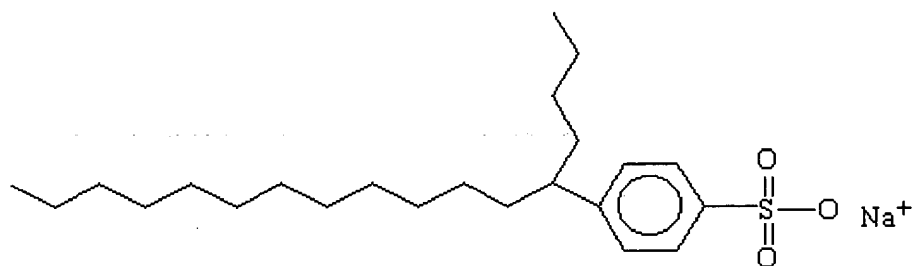
Alkylsulfate Surfactant



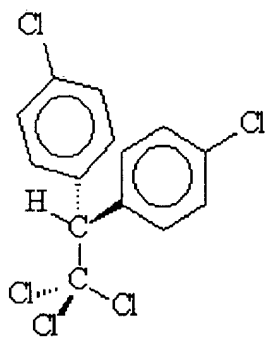
Alkylbenzene Sulfonate (ABS)



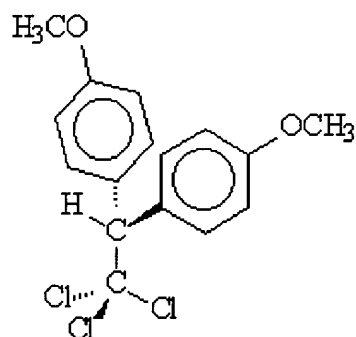
Linear Alkyl Sulfonate (LAS)



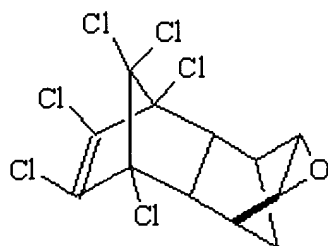
Organochlorine Insecticides



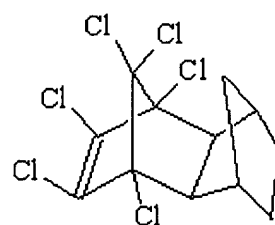
DDT



Methoxychlor



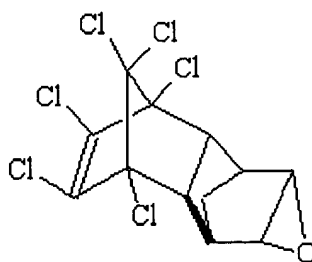
Dieldrin



Aldrin

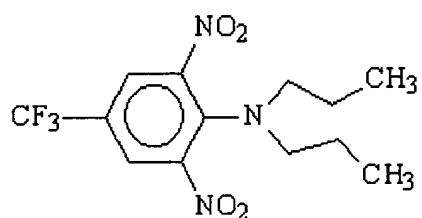
3-D structure of DDT

3-D structure of Aldrin



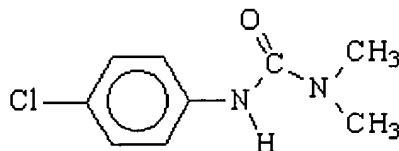
Endrin

Nitroaniline Herbicides



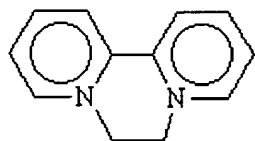
Trifluralin

Miscellaneous Herbicides

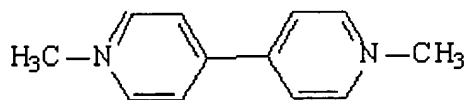


3-(4-Chlorophenyl)-1,1-dimethylurea

Dipyridilium Herbicides

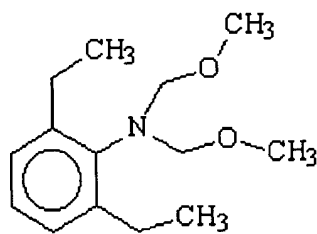


Diquat

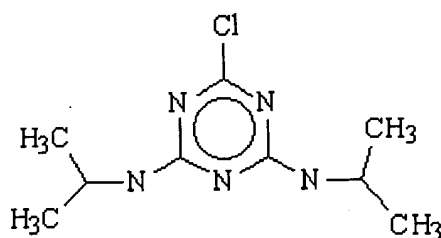


Paraquat

Additional Common Herbicides

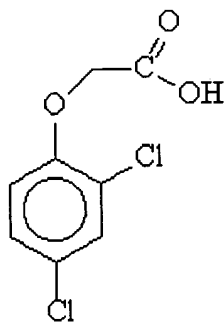


Alachlor

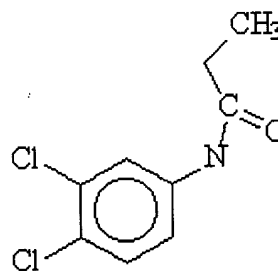


Atrazine

Additional Common Herbicides

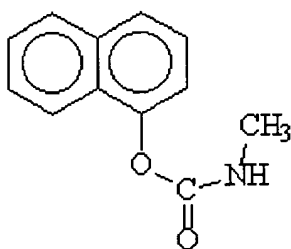


2,4-Dichlorophenoxyacetic acid

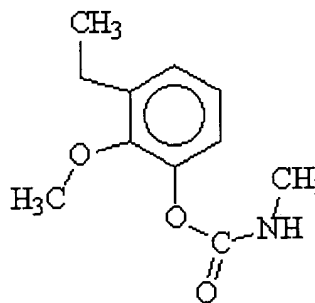


Propanil

The Carbamate Insecticides

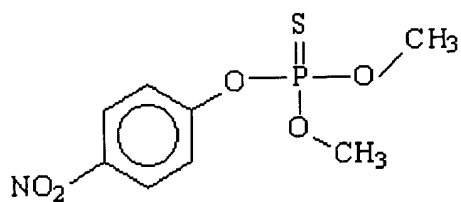


Carbaryl

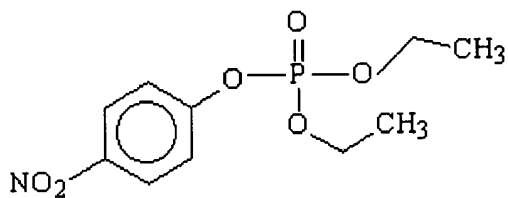


Carbofuran

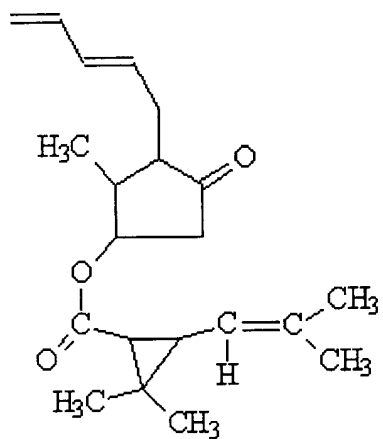
Organophosphate Insecticides



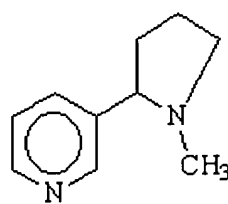
Methyl Parathion



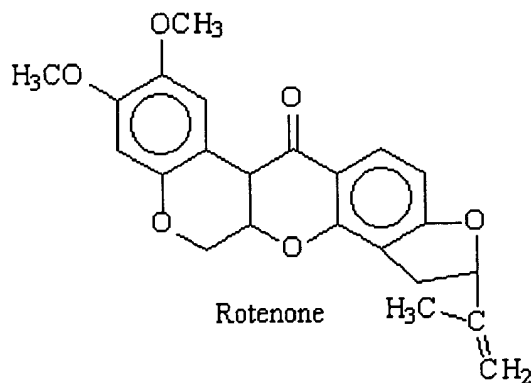
Ethyl Parathion

3-D structure of parathion**Botanical Insecticides**

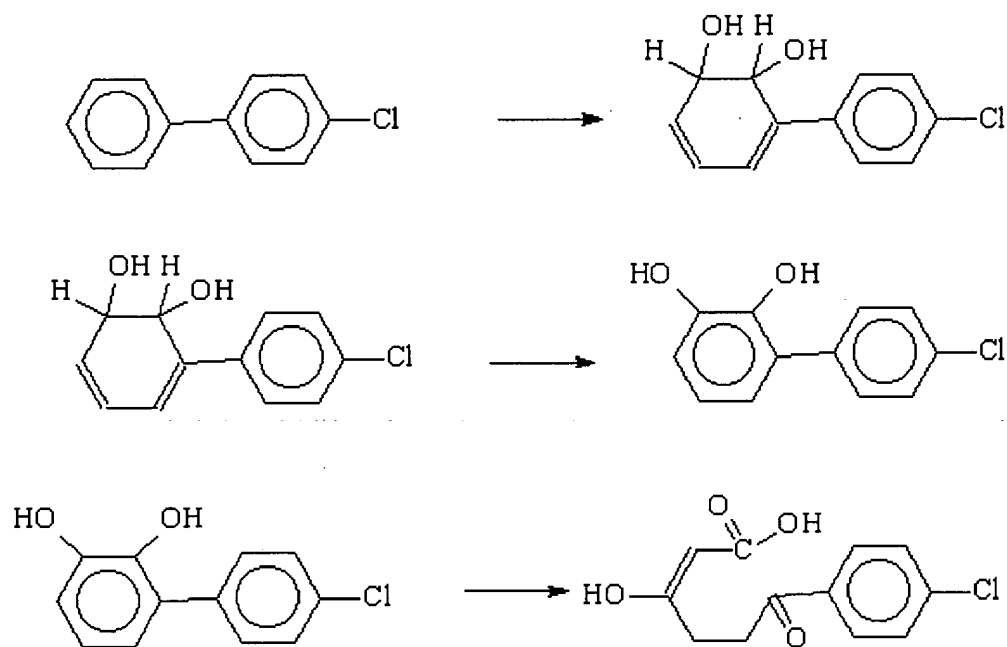
Allethrin



Nicotine



Rotenone

**ENV 440 - Course Topics***Environmental Chemistry – ENV 440**Last Updated: 04/19/00*

Google™

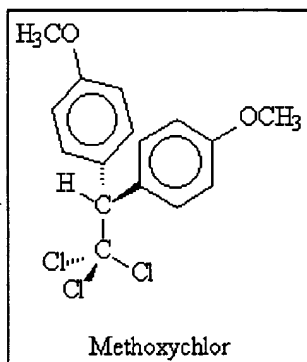
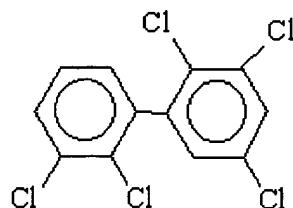
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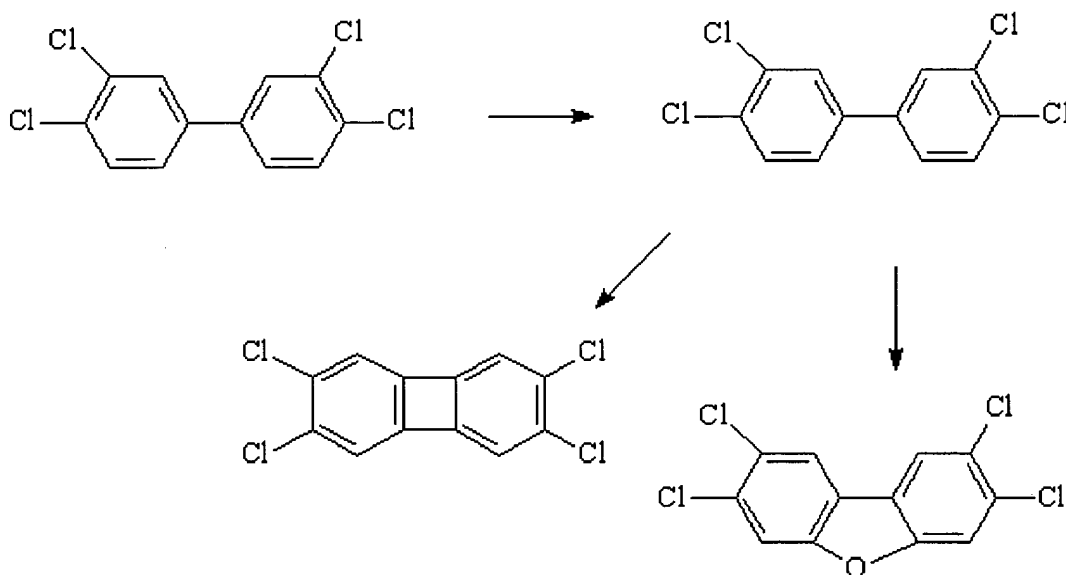
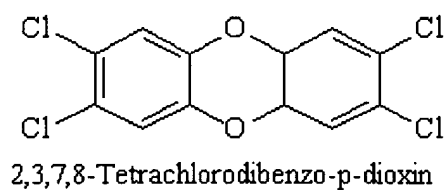
Image has been scaled down. [See full-size image.](#)

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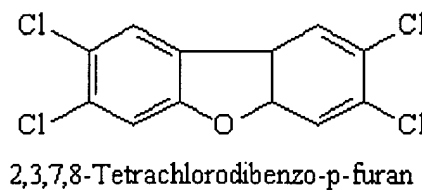
Below is the image in its **original context** on the page: jan.ucc.nau.edu/~env440_2/lectures/lec22/lec22.html

3-D structure of nicotine**Polychlorinated Biphenyls**

Polychlorinated Biphenyl

3-D structure of biphenyl (without chlorine atoms)**Dioxins and Furans**

2,3,7,8-Tetrachlorodibenzo-p-dioxin



2,3,7,8-Tetrachlorodibenzo-p-furan

Environmental Degradation of PCBs